

REMARKS

In the Official Action mailed on December 20, 2005, the Examiner rejected claims 1 –
5 20. Claims 1, 2 and 4 – 8 have been rejected under 35 U.S.C. 103(a) as being unpatentable over
Kanno (USPN 6,377,879) in view of Morikami (USPN 6,116,971). Claims 3 and 12 – 17 have
been rejected under 35 U.S.C. 103(a) as being unpatentable over Kanno ‘879 and Morikami and
further in view of Kanno (USPN 5,481,261). Claims 18 – 20 have been rejected under 35 U.S.C.
10 103(a) as being unpatentable over Kanno ‘879, Morikami and Kanno ‘261 and further in view of
Fossard et al. (USPN 3,786,628).

Although applicant concedes that a buzzer, such as buzzer 16 in the Morikami patent,
typically vibrates to cause the audible “buzz”, applicant respectfully contends that Examiner’s
further conclusions regarding the cited prior art are improper and could only have been made by
using the subject patent application as a guide.

15 As an example, Examiner concludes that it would have been obvious to locate the buzzer
from Morikami on the display unit of Kanno ‘879 for use as a “vibrating element” connected in
vibration transmitting relation with the operator controlled movable device (throttle handle 116)
of Kanno ‘879. Applicant respectfully asks Examiner where this hypothetical combination is
suggested in any of the cited references. What Examiner seems to be saying is that it would have
20 been obvious to take a buzzer, which is only used as an audible signal in Morikami, and attach it
to a throttle handle of a boat as shown in Kanno ‘879. Has Examiner ever seen a buzzer attached
to a throttle handle? Why would anyone ever do that? Applicant respectfully contends that it
makes absolutely no sense whatsoever to take a buzzer, which is clearly and solely used as an
audible alert mechanism in Morikami, and attach it to a throttle handle as shown in Kanno ‘879.
25 The only possible motivation for this type of combination is Examiner’s use of the subject patent
application as an instruction book with which to find disassociated patents which each happen to
contain some individual element of the subject invention. Applicant further contends that this
type of combination and use of the subject patent application as a guide is improper and this
rejection should be withdrawn.

30 Even though a buzzer is conceded to vibrate to produce an audible sound, applicant is
unaware of any buzzer that has ever been used in a haptic application. In addition, applicant is
unaware of any application where a buzzer has been used to cause some other component to

vibrate slightly. Although applicant concedes that the transmission of sound by a buzzer may cause other devices to vibrate, the use of this type of structure in a haptic application is unknown to applicant and, apparently, to the Examiner. The cited references clearly do not suggest this use.

5 Notwithstanding the fact that applicant strongly contends that Examiner's combination of the cited references is improper and is not suggested in any of those references, the claims of the subject patent application have been amended in order to more explicitly identify the novelty and to expedite allowance. For example, claim 1 has been amended to explicitly describe the vibrating element as being configured "to cause said operator controlled movable device" to vibrate in a manner "which is tactilely sensible to an operator of the marine propulsion device".
10 In other words, claim 1 now explicitly limits the subject invention to the transmission of a signal by causing the operator controlled movable device (e.g. throttle handle) to vibrate in a way that can be sensed by the operator through the sense of touch.

15 Applicant respectfully contends that, even if one skilled in the art was motivated to attach the buzzer of Morikami to the throttle handle of Kanno '879, that combination would most likely serve to silence the buzzer because buzzers are not typically intended to be encapsulated within other structures. As a result, this type of physical combination would likely diminish the intended effect of the buzzer. The subject invention, on the other hand, is not intended to provide an audible signal but, instead, to provide a haptic signal that can be sensed by the
20 operator through the operator's sense of touch.

25 Claim 12 has been amended in a manner generally similar to the amendment to claim 1 in order to more specifically describe the haptic throttle control mechanism in terms of the vibration that it causes to occur in the operator controlled movable device (throttle handle) and the fact that it operates to create a "tactilely sensible" signal which can be sensed by the operator's sense of touch.

Claim 19 has been amended in a manner generally similar to the amendments made to claims 1 and 12.

30 Applicant again respectfully contends that the selection of prior art patents cited by the Examiner, and their combination, could only have been made with the help of the subject patent application as a guide. In addition, the selection of a buzzer, as taught in Morikami, to fill the role of the vibrating element and the movement of the buzzer to an attached relationship with the

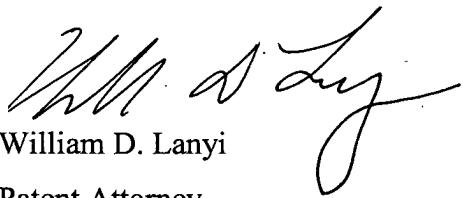
throttle handle, as suggested by the Examiner, is neither taught nor suggested in any of the prior art patents. Applicant respectfully contends that this combination is both illogical and likely to defeat the purpose of the buzzer as taught in the Morikami reference.

Applicant further points out for Examiner's consideration that the relationship between the vibrations of the buzzer and the engine speed, as discussed in the cited references, is not one in which the frequency of vibration is "directly proportional" to actual engine speed. This characteristic is explicitly described in claims 7 and 16. The relationship between buzzer frequency and engine speed discussed in the cited patents is one in which engine speed is mathematically divided into two ranges, one which is below a preselected magnitude identified as "alpha" and another engine speed range which is above alpha. As a result, the change in frequency of the buzzer could only possibly serve to provide information of whether or not the engine speed is operating above or below a preselected magnitude called alpha. This is not proportionality. In the subject invention, the vibrating frequency imposed on the throttle handle can be directly proportional to engine speed so that the operator receives a tactile signal which represents the engine speed even though the operator may not be able to actually hear the engine operating. This is truly a "haptic throttle control mechanism".

In view of the changes made to the claims of the subject patent application and in further view of the above discussion, applicant respectfully requests Examiner's reconsideration of the subject patent application and expeditious allowance of claims 1 – 20.

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Respectfully Submitted,



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